

**BEFORE THE DEPARTMENT OF
NATURAL RESOURCES AND CONSERVATION
OF THE STATE OF MONTANA**

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IN THE MATTER OF APPLICATION FOR)	
BENEFICIAL WATER USE PERMIT)	
NO.76LJ-30026983 BY JAMES JAY)	FINAL ORDER
BILLMAYER)	

* * * * *

Pursuant to its authority under Montana Code Annotated §§ 2-4-601 *et seq.*, and 85-2-310, and Mont. Admin. R. 36.12.201 *et. seq.*, and 36.12.501 *et seq.*, and upon the request of Applicant James Jay Billmayer, the Department of Natural Resources and Conservation (Department) conducted a show cause hearing in this matter on September 30, 2008, to allow Mr. Billmayer, hereinafter referred to as "Applicant" for the above application, to show cause why the Application For Beneficial Water Use Permit should not be denied under the terms specified in the Statement of Opinion, (SOP), issued by the Department on May 22, 2008, as revised August 8, 2008 (SOP), attached . The show cause hearing provided the Applicant an opportunity to present additional written and/or oral evidence and argument. This Final Order must be read in conjunction with the revised August 8, 2008 SOP. The Application proposes to divert water from January 1 to December 31 at 100 gallons per minute (gpm) up to 44.5 acre-feet (af) from two ground water wells. The water from these wells is to be used for multiple domestic and lawn and garden use for Ashley Trails Subdivision. Water for domestic use would be 11 acre-feet, January 1 through December 31, and 33.5 acre-feet for lawn and garden, March 15 through October 15.

APPEARANCES

Applicant James Jay Billmayer appeared at the hearing by and through counsel, Mr. John F. Lacey, and Kurt Hafferman consulting engineer representing Billmayer & Hafferman Inc.

EXHIBITS

Applicants offered one exhibit, A1, for the record. The Hearing Examiner accepted and admitted into evidence Applicant's Exhibits A1 thru A8.

EXHIBIT #’s	EXHIBIT DESCRIPTION	AUDIO TRACK
A-1	Response to Statement of Opinion for Aquifer Testing Report	12:15
A-2	Photos of Pump – 2	14:00
A-3	Appendix A – 8 hour Pump Test Data	15:30
A-4	Appendix A – 8 hour electronic copy	
A-5	Appendix B – 24 hour Pump Test Data	19:00
A-6	Appendix B – 24 hour electronic copy	
A-7	Appendix C – Water Rights within 6800 ft. diameter	44:46
A-8	Appendix D - Consumptive Use Worksheet and Colorado Stream Depletion Model	83:07

PRELIMINARY MATTERS

All of the testimony offered by the Applicant was accepted into the record. This must be read in conjunction with the Revised August 8, 2008 SOP as the show cause hearing was held to address the denial of the Application for the reasons set forth in the SOP. This decision considers the new evidence and arguments information presented by Applicant at the hearing and constitutes the Final Order on this Application. The Application was denied in a SOP from Kalispell Regional Office Manager Terry Eccles on May 22, 2008 as revised August 8, 2008, the contents of which is hereby incorporated by reference. The Application was proposed to be denied based on failure to prove the criteria of Physical Availability, Legal Availability and Adverse Effect, Mont. Code Ann. §85-2-311 (a)(ii)(b). Criteria related to Adequacy of Diversion, Beneficial Use, Possessory Interest and Water Quality were addressed in the Statement of Opinion and were not part of this hearing, Mont. Code Ann 85-2-311(c)(d)(e) and (f). The Applicant on May 28, 2008 requested a show cause hearing and a show cause hearing was held on September 30, 2008. The issues at the hearing to be addressed were Physical Availability, Legal Availability and Adverse Affect. During a pre-hearing conference call with the representing attorney, Physical Availability, Legal Availability and Adverse Affect were discussed as outlined in the SOP.

The Hearing Examiner, having reviewed the full record in this matter and being fully advised in the premises, does hereby respond as follows to the Applicant's arguments presented at the Show Cause Hearing held September 30, 2008.

Application Details

The overall summary of the SOP stated that in the opinion of the Department the Applicant did not specifically document aquifer-testing methodology and conduct analysis in the technical report and thus sections of the application could not be evaluated.

Based upon the testimony of the Applicant's consulting engineer and review by the Department Hydrogeologist, the Aquifer-testing deficiencies were corrected by reevaluating their aquifer test data for the individual observation wells and by using acceptable methods of analysis, these methods are outlined in Exhibit A-1. In summary: the Applicant reevaluated the data analysis process to better determine the aquifer properties. This included an estimate of aquifer's transmissivity which indicates that the aquifer in the proximity of the Applicant's wells is productive and can sustain the requested discharges. Also, the storage coefficient used by the Applicant simply indicates that the aquifer is confined. Lastly, the applicant submitted Forms 633 on compact discs in proper format that had been previously requested.

Physical Availability

1. **Applicant Argument:** Applicant's consultant testified that they conducted an 8-hour drawdown-yield test on the west well on July 29, 2008. This was done to demonstrate the criterion of physical availability. The description of the test and results of the test are found in Exhibit A-1 pages 2-5. This documentation was revised from the October 30, 2007 submittal and again revised in September 23, 2008 to reflect the changes made to address the issues as stated in the August 8, 2008 SOP.

2. **Hearings Examiner Response:** Based upon testimony and the contents of Exhibit A-1 the Applicant reevaluated the 8-hour drawdown. This was done in order to complete the demonstration of the criterion of physical availability. The Applicant demonstrated that the West well produced and maintained a discharge of about 93 gallons per minute (gpm) for the duration of the 8-hour test. Aquifer testing at the East well during 2007 also produced a relatively constant discharge rate of 95 gpm. The results of the drawdown-yield test at the West well, plus the results of the 24 hour test of the East well credibly showed that the requested discharge of 100 gpm can easily be produced and maintained either by the two wells pumping concurrently or by some combination of cyclic pumping from individual wells.

The Applicant addressed long-term physical availability for both production wells by plotting measured drawdown recorded during pump-testing and extrapolating drawdown for the full 365-day period of diversion. Considering both wells, the West well maximum projected drawdown for 365 days was about 51 feet with static water level at 92 feet below top of casing and pump setting at 180 feet. The East well projected drawdown for 365 days was about 12 feet with static water level about 81 feet and pump setting at 180 feet. It was demonstrated that water will remain above the pumps. The testing data supplied through testimony and Exhibits for both production wells demonstrate that the criterion of physical availability is adequately addressed. The Applicant has proven that water is physically available at the proposed points of diversion in the amount Applicant seeks to appropriate, and in the amount requested. Mont. Code Ann. § 85-2-311(1)(a)(i).

Legal Availability of Water

1. **Applicant Argument:** The Applicant through his consultant testified that he evaluated the time drawdown data from the observation wells and the West well and the Marquardt well were reanalyzed separately, using acceptable pump test analysis software to determine aquifer properties which were then used to determine the zone of influence. The Marquardt well was used as the observation well for the West well drawdown test. Through calculation of annual aquifer flux in acre-feet, a transmissivity estimate of $4890 \text{ ft}^2/\text{day}$ and a radial distance of 9,000 feet for the zone of influence resulted in an estimated annual aquifer flux of 1,770 acre-feet per year. The estimate of 1,770 acre feet is a reasonable value for physical availability of water in the 9,000 radial zone of influence. Water rights within the 9,000 ft. radial area were determined to be 915 acre-ft per year leaving 855 acre-ft per year of water legally available. (1,770 ac-ft minus appropriated water of 915 acre-ft, leaves 855 acre-ft available.) The Applicant evaluated a 6,800 foot zone of influence to determine an aquifer flux of 1,337 acre feet per year in the zone of influence. The volume of senior water rights in the 6,800 ft. radial area is 613 acre-feet leaving 724 acre-feet of water legally available to appropriate.

The reason for analyzing two zones of influence, 9,000 feet and 6,800 feet, was at 6,800 feet it was determined that the residual drawdown for determining zone of influence was within 0.01 feet of the starting static water level for the calculated average transmissivity value of $4,890 \text{ ft}^2/\text{day}$. Thus 0.01 is the number to define zone of influence. This is the Department recommended default value which is a reasonable assumed value typically referenced in

hydrogeology textbooks. The resulting information the zone of influence had been shown to be less and the transmissivity values slightly higher.

In each case, as the radial size of the zone of influence increases or decreases the volume of the legally appropriated water rights increases or decreases proportionally.

The conclusion by the Applicant, based upon the testimony and the Exhibits submitted, the analysis provides a reasonable determination of legal availability.

2. Hearings Examiner Response: The Applicant credibly addressed the criterion using Department accepted procedures to delineate two zones of influence. In the Exhibit A-1 pages 6-15 the Applicant calculated aquifer flux using both the 9,000 and 6,800 foot radial zones of influence. The Applicant then tabulated volumetric appropriations of 915 acre feet for senior water rights lying within the larger zone of influence, which is a more conservative evaluation than that of the smaller area. Either comparison shows that the volume of aquifer flux exceeds the volume of senior appropriations by more than the amount of the requested appropriation (44.5 acre-feet). The Applicant has demonstrated that aquifer flux exceeds the existing plus proposed legal water demands and that the criterion of legal availability is adequately addressed. This was accomplished through correct evaluation of transmissivity and credible aquifer testing results comparing them with senior appropriators within the zone of influence.

The Applicant has proven that water can reasonably be considered legally available during the period in which the Applicant seeks to appropriate, in the amount requested, based on the records of the Department and other evidence provided to the Department.

Adverse Effect

1. **Applicant Argument:** The Applicant through consultant testimony and submission of Exhibit A-1 pages 15-17 discussed potential adverse effect on both surface and ground water senior appropriators. This was done by analyzing information from aquifer pump tests and the results of the distance-drawdown analysis. The Marquardt observation well is approximately 1,200 feet from the production wells in the applications. There are no wells within the first 800 feet of production well but there are six wells within the first 1,000 feet of the production well. With 0.67 feet of drawdown in the Marquardt well at a distance of 1,200 feet, the drawdown and distance data had shown that the 7.47 ft. of maximum drawdown in the production well over 24 hours leaves sufficient water to maintain hydraulic head over any of the pumps in the wells that are within the first 1,000 ft of the test wells. It also could be concluded that it would not adversely affect senior water right users in the source of supply beyond 1,000 ft.

In the Applicants analysis of surface waters the Applicant states that this water is from a

deep confined aquifer. Flow measurements in Ashley Creek completed in the July 2007 report indicated that the source is not immediately or directly connected to Ashley Creek by these indications there was no instantaneous flow changes in Ashley Creek observed during the entire testing period, including recovery. Therefore, with the well developed at a depth of 200 feet, through confining units identified in well logs, no observable or measureable drawdown in Ashley Creek was detected, it is reasonable to assume that this appropriation is not immediately or directly connected to surface water in Ashley Creek.

The Applicant went on to say that in order to test the potential time that it may take for the impact of this appropriation to be seen in surface water source, a stream depletion model was run on the nearest surface water source which was Flathead Lake. It is assumed that water in this confined aquifer will eventually find a connection to surface water. It is also recognized that the deep aquifer is not infinite and that Flathead Lake may serve as a discharge point. Based upon this assumption the discharge is at an elevation in Flathead Lake near or deeper than 200 feet. The first location for such a discharge is Woods Bay a distance of 19.14 miles. The calculated consumed volume of the proposed application was estimated at 11.13 acre-feet annually. Using 19.14 miles as the distance it was calculated that the time from first appropriation until the full 11.13 acre-feet annually is depleted in Flathead Lake is estimated to be 90 years.

The Applicant's conclusion noted that provisional permits have protections already in place to protect senior appropriators. The Applicant also felt through testimony and Exhibits A-1 thru A-8 that there has been demonstrated a full understanding of the potential adverse affect to prior appropriators in the source of supply and a complete justification for issuance of this permit. In addition there were no water right holders that filed an objection to issuance of the permit.

2. **Hearings Examiner Response:** The Applicant addressed the criterion of adverse effects on Ashley Creek through testimony and Exhibits A-1 pages 15-17. The conclusion that there was no adverse effect was based upon observation during testing period including recovery, available well logs and reference to The Montana Groundwater Characterization Guide which provides evidence that this appropriation is from deep artesian aquifer in the Kalispell Valley. Through evaluation and analysis of the pumping tests indicating a confined aquifer and flow measurements indicating that the wells are not directly connected to Ashley Creek and with no observable or measureable drawdown in Ashley Creek, it is reasonable to assume that this appropriation is not connected to surface water in Ashley Creek. Due to the confined nature of the aquifer, there is no hydraulic connection between the aquifer and Ashley

Creek and thus no impact to flow in Ashley Creek within the zone of influence is anticipated during the period of diversion. The Applicant does however acknowledge that water pumped by the proposed appropriation represents an impact at some future time and place within the hydrologic system. The Applicant did a consumptive use analysis which indicated that for a 214 day irrigation period and 8.8 acres of lawn and garden irrigation, 10.58 acre-feet per year of consumptive use will occur. In addition, of the 11 acre-feet proposed for domestic use, approximately 5 percent or 0.55 acre-feet per year will be consumptively used. Total consumptive use totals 11.13 acre-feet/year.

A surface water depletion analysis evaluates the volume and time required for depletion to develop to the full volume of the consumptive use. The applicant conducted numerical computer simulations to assess whether pumping from the deep confined aquifer would adversely impact senior surface water users. The applicant concludes that no immediate or discernible diminishment of surface water is expected in Flathead Lake at Woods Bay. Regardless of whether the Applicant chose Woods Bay as the aquifer discharge point or the nearest point on Flathead Lake at Kalispell Bay near Somers, it is reasonable to expect that surface water depletion from net consumption will begin to develop within years and will require several decades to develop to the full consumptive use volume of 11.13 acre feet per year. In this case it will take decades before the consumptive use of this appropriation has an affect on surface water users and that any depletion will not have an adverse effect on the ability of surface water users to reasonably exercise their water rights.

Based upon the Applicants testimony and Exhibits the proposed project indicates that there will not be adverse affect to senior surface or ground water appropriators. This evaluation of senior users and any adverse affects as described in the SOP has been satisfied through the testimony and Exhibits submitted.

Applicant has proven that the water rights of a prior appropriation under an existing water right, a certificate, a permit, or a state water reservation will not be adversely affected. Adverse affect determination is based on a consideration of an applicant's plan for the exercise of the permit that demonstrates that the applicant's use of water will be controlled so the water rights of a prior appropriator will be satisfied.

I FIND: The Applicant at the show cause hearing on September 30, 2008 did through additional written and oral evidence and argument show cause why the Application for Beneficial Water User Permit should not be denied under the terms specified in the revised SOP issued by the Department on August 8, 2008.

Therefore, Application for Beneficial Water Use Permit No. 30026983-76LJ by James Jay Billmayer be **GRANTED** for the reasons specified above and in the SOP.

FINAL ORDER

Application for Beneficial Water Use Permit NO.76LJ-30026983 is **GRANTED** to JAMES JAY BILLMAYER to divert water from January 1 to December 31 at 100 gallons per minute (gpm) up to 44.5 acre-feet (af) from two ground water wells located in SE1/4NW1/4,NW1/4 Section 13, Township 28N, Range 22W, Flathead County West of Kalispell approximately 6 miles. The water is to be used for multiple domestic and lawn and garden use for Ashley Trail Subdivision. The amount of water for domestic use will be 11 acre-feet from January 1 through December 31, and 33.5 acre-feet for lawn and garden from March 15 through October 15. The terms of the granting of this permit are based upon the Applicant's ability to shutdown the pumps if there is a valid call for water.

NOTICE

A person who has exhausted all administrative remedies available within the agency and who is aggrieved by a final decision is entitled to judicial review under the Montana Administrative Procedure Act (Title 2, Chapter 4, MCA). A petition for judicial review under this chapter must be filed in the appropriate district court within 30 days after service of the final order. (§ 2-4-702 MCA)

If a petition for judicial review is filed and a party to the proceeding elects to have a written transcript prepared as part of the record of the administrative hearing for certification to the reviewing district court, the requesting party must make arrangements for preparation of the written transcript. If no request for a written transcript is made, the Department will transmit only a copy of the audio recording of the oral proceedings to the district court.

Dated this 9th day of October, 2008.

/Original signed by Terry Eccles/
Terry Eccles, Hearings Officer
Water Resources Division
Department of Natural Resources
and Conservation
109 Cooperative Way, Suite 110
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CERTIFICATE OF SERVICE

This certifies that a true and correct copy of the **FINAL ORDER** was served upon all parties listed below on this 9th day of October, 2008, by first-class United States mail.

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